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Dan D. Pascali* (dp39@nyu.edu), 251 Mercer Street, New York, NY 10012-1185. *New operator-numerical advances on Hammerstein equations.*

The Hammerstein operator on a Banach space corresponds to a perturbation of the identity by a product of two operators. More precisely, it has the form with linear component and nonlinear factor where is other Banach space. By choosing different suitable spaces various classes of linear and non-linear mappings were been introduced, to prove that the Hammerstein equation has solutions. We give emphasis to new connections between some existence results, Petryshyn's A-proper solvability and new iterative methods. (Received September 15, 2014)